

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 99.28**WELDING INSPECTION REPORT****Resident Engineer:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-018630**Date Inspected:** 14-Dec-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC) Chanxing Island**Location:** Shanghai, China

CWI Name:	Mr. Geng Wei		
Inspected CWI report:	Yes	No	N/A
Electrode to specification:	Yes	No	N/A
Qualified Welders:	Yes	No	N/A
Approved Drawings:	Yes	No	N/A

CWI Present:	Yes	No
Rod Oven in Use:	Yes	No
Weld Procedures Followed:	Yes	No
Verified Joint Fit-up:	Yes	No
Approved WPS:	Yes	No
Delayed / Cancelled:	Yes	No

Bridge No: 34-0006**Component:** OBG Segment**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance Inspector (QA), Vibin Kumar Selvanayaham, was present during the times noted above for observations relative to the work being performed.

Magnetic Particle Testing (MT) – NWIT Document No's: 007772

This QA inspector performed MT of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an MT report for this date. The members are identified as OBG Segment 13CE Deck Panel U-Ribs. The weld designations reviewed are as follows:

1. DP3100-001-010, 011, 020, 021, 036, 037, 054, 055, 062, 063, 078, 079, 088, 089
2. DP3100-001-012, 013, 017, 018, 041, 042, 046, 047, 059, 060, 075, 076, 080, 081
3. DP3100-001-093, 094, 101, 102, 114, 115, 119, 120, 135, 136, 143, 144
4. DP3100-001-153, 154, 161, 162, 111, 112, 122, 123, 138, 139, 164, 165
5. DP3100-001-009, 019, 016, 040, 043, 050, 066, 069, 074, 077, 100, 103
6. DP3100-001-108, 126, 129, 134, 112, 145, 152, 168, 171, 176, 155

Description of Incident: During the Quality Assurance Magnetic Particle Testing (MT) review of welds located on Segment 13CE, this Quality Assurance Inspector (QA) discovered that one (1) MT crack measuring approximately 10mm in length. The weld is identified as: DP3100-001-113. This weld is a Complete Joint Penetration (CJP) weld joining the Deck Panel U-Rib to Deck Panel Diaphragm. The Deck Panel U-Rib and Deck Panel Diaphragm are identified as Non SPCM. This weld is designated as Non Seismic Performance Critical Member (Non SPCM). The

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indication is clearly marked on the material near the weld. OBG segment 13CE is located East Side of Bay 14 area. The Indication is located within an area that has been previously tested by ZPMC Quality Control (QC) personnel. As per contract documents ZPMC is required to perform 100% Magnetic particle Testing (MT) of this weld. The ZPMC QC is identified as Mr. Wang Lu. See the attaché picture.

Bay 14

This QA Inspector observed the following work in progress:

Shielded Metal Arc Welding (SMAW) welding of weld joint SEG3019A-024 located on bottom plate to side plate OBG Segment 13CE. ZPMC Welder is identified as 044772 ZPMC Quality Control (QC) is identified as Mr. Wang Xu. The welding variables recorded by QC appeared to comply with the Applicable WPS-345-SMAW-1G (1F) – FCM-Repair-1, which is used as per Welding Repair Report (WRR) B-WRR-19109.

SMAW welding of weld joint SEG3009K-191 located on OBG Segment 13BE. ZPMC Welder is identified as 067571. ZPMC Quality Control (QC) is identified as Mr. Geng Wei. The welding variables recorded by QC appeared to comply with the Applicable WPS -B-P-2114-FCM-1.

SMAW repair welding of weld joint SEG3011C-098 located on bottom panel stiffener to Floor beam of OBG Segment 13CE. ZPMC welder is identified as 066326. ZPMC Quality Control (QC) is identified as Mr. Wang Xu. The welding variables recorded by QC appeared to comply with the Applicable WPS-345-SMAW-3G (3F) - Repair, which is used as per Welding Repair Report (WRR) B-WRR-17125.

Flux Core Arc Welding (FCAW) repair welding of weld joint SEG3015B-227 located on floor beam to I-Stiffener OBG Segment 13CW. ZPMC welder is identified as 201583. ZPMC Quality Control (QC) is identified as Mr. Sun Tian Liang. The welding variables recorded by QC appeared to comply with the Applicable WPS-345-FCAW-3G (3F) – ESAB-Repair, which is used as per Welding Repair Report (WRR) B-WRR-18842.

FCAW repair welding of weld joint SEG3015B-235 located on floor beam to I-Stiffener OBG Segment 13CW. ZPMC welder is identified as 201583. ZPMC Quality Control (QC) is identified as Mr. Sun Tian Liang. The welding variables recorded by QC appeared to comply with the Applicable WPS-345-FCAW-3G (3F) – ESAB-Repair, which is used as per Welding Repair Report (WRR) B-WRR-18845.

SMAW repair welding of weld joint SEG3014E-066 located on floor beam to I-Stiffener OBG Segment 13BW. ZPMC welder is identified as 066179. ZPMC Quality Control (QC) is identified as Mr. Sun Tian Liang. The welding variables recorded by QC appeared to comply with the Applicable WPS-345-SMAW-3G (3F) – Repair, which is used as per Welding Repair Report (WRR) B-WRR-18599.

SMAW repair welding of weld joint SEG3014E-101 located on floor beam to I-Stiffener OBG Segment 13BW. ZPMC welder is identified as 066179. ZPMC Quality Control (QC) is identified as Mr. Sun Tian Liang. The welding variables recorded by QC appeared to comply with the Applicable WPS-345-SMAW-3G (3F) – Repair, which is used as per Welding Repair Report (WRR) B-WRR-18607.

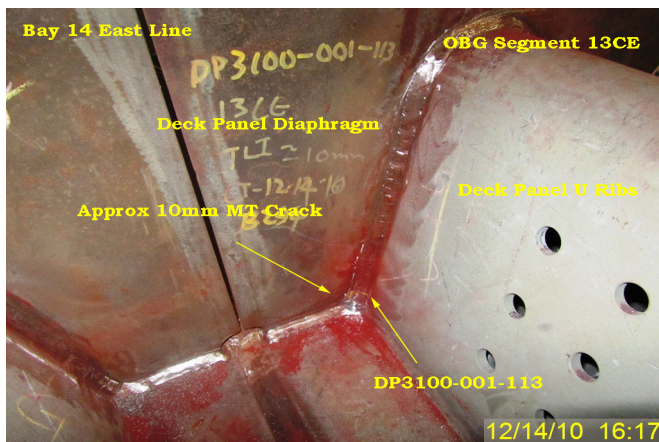
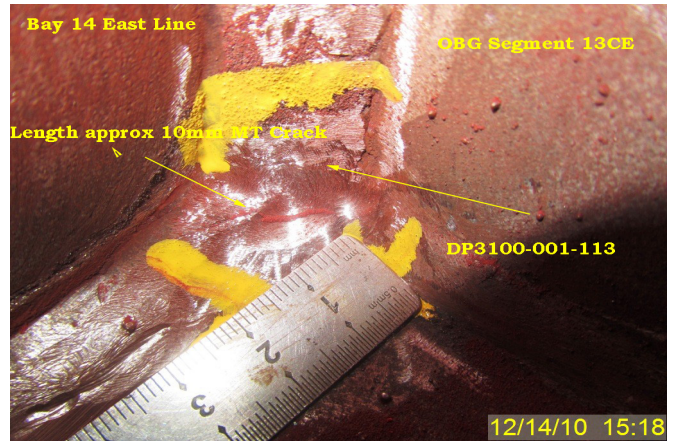
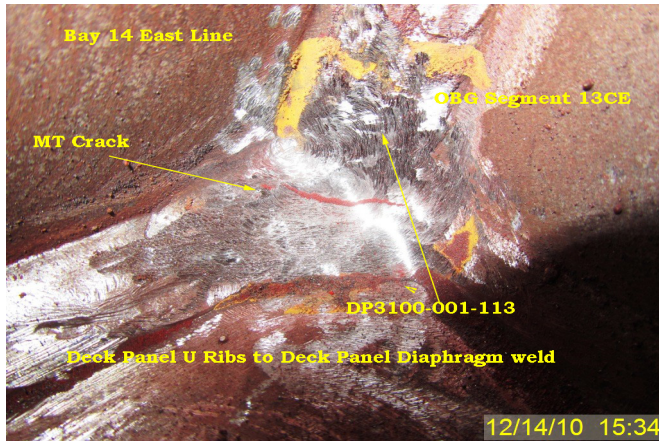
SMAW repair welding of weld joint SEG3014E-141 located on floor beam to I-Stiffener OBG Segment 13BW.

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ZPMC welder is identified as 066179. ZPMC Quality Control (QC) is identified as Mr. Sun Tian Liang. The welding variables recorded by QC appeared to comply with the Applicable WPS-345-SMAW-3G (3F) – Repair, which is used as per Welding Repair Report (WRR) B-WRR-18613.

Unless otherwise noted, all work observed on this date appeared to be in general compliance with the applicable contract documents.



Summary of Conversations:

Only general conversation was held between QA and QC concerning this project.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact , who represents the Office of Structural Materials for your project.

Inspected By:	Kumar,Vibin	Quality Assurance Inspector
Reviewed By:	Patel,Hiranch	QA Reviewer